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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

March 3, 2011

Mr. Ned Hall
Chino Mines Company
Freeport-McMoRan Copper & Gold
6840 North Oracle Road #140
Tucson, Arizona 85704

RE: Chino AOC Informal Dispute Resolution, Smelter and Tailing Soils Investigation Unit

Dear Mr. Hall:

This letter documents the outcome of a dispute resolution process invoked by Freeport-McMoRan Chino Mines Company (Chino) with respect to the Pre-FS RAC for the Smelter and Tailing Soils Investigation Unit (S/TSIU) under the Chino Administrative Order on Consent dated December 23, 1994. The Pre-FS RAC was based on information documented in the Ecological Risk Assessment (ERA), the Human Health Risk Assessment (HHRA), and a probability analysis, as well as comments and input provided by stakeholders and other interested parties. On September 16, 2010, the Secretary of the New Mexico Environment Department (NMED) issued a letter stating the Pre-Feasibility Study Remedial Action Criteria (Pre-FS RAC) for the S/TSIU. On November 15, 2010, Chino Mines Company (Chino) timely initiated informal dispute resolution pursuant to the terms of the AOC. On December 30, 2010, Chino submitted an Informal Dispute Resolution Technical Memorandum addressing the Pre-FS RAC. NMED and Chino staff have met to discuss this matter on December 13, 2010, January 12, 2011 and February 17, 2011.

Specifically, Chino invoked dispute resolution with regard to the following Pre-FS RAC criteria:

Human Health Risk

1. NMED selected a cancer target risk with a Pre-FS RAC for arsenic = 20mg/kg.

Ecological Risk

2. NMED selected a target risk to reduce soil toxicity to plans, Pre-FS RAC = cupric ion activity (pCu^{2+}) ≥ 5 where copper is > 327 mg/kg.

3. NMED selected a target risk for small ground feeding birds with Hazard Quotient = 1, Pre-FS RAC = 626 mg/kg copper.

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NMED, our human health risk assessor Gradient Corporation (Gradient), and our ecological risk assessor, Formation Environmental (Formation), have reviewed Chino's additional information and considered all of the comments presented by Chino during the informal dispute resolution period in conjunction with the information previously presented in the ERA and the HHRA. Based on the new information presented and Gradient's and Formation's analysis, NMED concludes that the Pre-FS RAC for arsenic be revised from 20 mg/kg to 27 mg/kg and that the Pre-FS RAC for copper (soils) for the small ground-feeding bird scenario be revised from 626 mg/kg to 1,600 mg/kg. On-going studies and monitoring will address the uncertainties regarding the cupric ion activity Pre-FS RAC, as discussed below. Otherwise, the Pre-FS RAC is as stated in the September 16, 2010 letter.

The following details NMED and Chino's discussions and the resolution of the above-referenced issues.

Human Health Risk

In the Pre-FS RAC letter dated September 16, 2010, NMED selected a cancer target risk for arsenic in soil of 20 mg/kg based on the human health risk assessment conducted for the S/TSIU along with other arsenic cleanup levels established at other mine sites in New Mexico. The probabilistic risk assessment conducted by Chino for the S/TSIU resulted in a concentration of 27 mg/kg arsenic in soil which is the concentration that Chino supports. Upon further discussion with Chino and NMED's human health risk assessors at Gradient, NMED agrees that a Pre-FS RAC for arsenic in soil of 27 mg/kg as obtained using the probabilistic risk assessment model is protective of human health for the S/TSIU.

Ecological Risk

Plant Toxicity

In the Pre-FS RAC letter dated, September 16, 2010, NMED selected a target risk to reduce soil toxicity to plants equal to a cupric ion activity $\geq$ 5 where copper is > 327 mg/kg. Two significant events have occurred which may reduce the area where cupric ion activity is toxic to plants; the "white rain" event in January of 2008 and the demolition of the smelter in 2007. The white rain event resulted in increases of pH in soil and since the smelter is no longer in use, additional acidic emissions no longer are contributing to lowering pH in soil from smelter emission fallout. However, the permanence of the pH changes from these events, particularly the white rain event is unknown. To help answer this question, Chino has initiated annual soil pH monitoring and has completed three monitoring events to date, but further monitoring is required. In our discussions, Chino mentioned the potential to conduct studies that would address their remaining concerns related to uncertainties in establishing the RAC for cupric ion activity. The ongoing soil pH monitoring and any other studies would provide new information that could potentially result in a revised final RAC for the cupric ion activity and/or can be used in selection of alternatives in the Feasibility Study (FS) process.

Chino is concerned that new information may not be incorporated into the process for establishing final cleanup goals and selection of remedial alternatives. The Comprehensive Environmental Response, Compensation, and Liability Act process provides an avenue to incorporate new information into the FS process, but Chino is concerned that the AOC does not provide the same ability as it does not specifically state this in the Statement of Work. However, Section II.A of the AOC states "The objective of the Parties in entering into this AOC is to protect the public health and welfare and the environment at the Investigation Area through a Remedial Investigation, Feasibility Study, and the development, design and implementation of a Remedial

Action plan or plans for the Investigation Units **consistent with the National Contingency Plan (NCP) [emphasis]**." Therefore, since the FS and Record of Decision (ROD) will be completed consistent with the NCP, new information can be used to refine RACs and selection of alternatives. This is supported by the NCP in §300.430(e)(2)(i) which states "Establish remedial action objectives specifying contaminants and media of concern, potential exposure pathways, and remediation goals. Initially, preliminary remediation goals are developed based on readily available information, such as chemical-specific ARARs or other reliable information. Preliminary remediation goals should be modified, as necessary, as more information becomes available during the RI/FS. Final remediation goals will be determined when the remedy is selected. Remediation goals shall establish acceptable exposure levels that are protective of human health and the environment ..." It must be noted that NMED's Pre-FS RACs are equivalent to preliminary remediation goals referred to in the NCP.

Chino is also concerned that Chino may not dispute the cupric ion activity Pre-FS RAC in the future, i.e. in the FS or ROD. As previously indicated in NMED's January 10, 2011 letter to Chino, Chino may not invoke dispute resolution a second time for resolution of the disputed Pre-FS RAC criteria based on existing information. Chino may, however, raise new information that is relevant to a determination of final RAC and may invoke dispute resolution based on such new information.

Small Ground Feeding Bird

Following the meeting held on January 12, 2011, NMED's risk assessor, Formation, evaluated the additional information Chino's risk assessors provided related to the risk to the small ground feeding bird. Formation re-calculated the risk and shared this information with Chino prior to the meeting on February 17, 2011. At the meeting, Chino provided responses to Formation's calculations and their revised calculation of the risk to the small ground feeding bird based on Formation's information.

Based on the recent information, NMED has elected to revise the copper Pre-FS RAC (soils) for the small-ground-feeding bird scenario to 1,600 mg/kg. The basis for this revision is recent data collected by Chino showing lower copper concentrations in invertebrates, and higher pH in soils of the S/TSIU as a result of the January 2008 'white rain' event, and implications of these data for copper bioavailability. A Pre-FS RAC of 1,600 mg/kg reflects soil copper bioavailability between 0 and about 10%, which is within the range recently discussed for soils.

This Pre-FS RAC is intended to indicate need for active remediation for protection of the small ground-feeding bird receptor in S/TSIU exposure units. This Pre-FS RAC is applicable to the 95UCL of the area-weighted average concentration of copper in surface soils (0-6 inch) within exposure units in the S/TSIU. Exposure units shall be consistent with the Assessment Endpoint, and be delineated based on habitat.

If the 95UCL area-weighted average copper concentration in an exposure unit exceeds 1,100 mg/kg, Chino shall propose risk-based monitoring of abiotic and/or biotic media to help ensure that risk from copper exposure of small ground-feeding birds in the exposure unit do not exceed acceptable levels. A protectiveness assessment consistent with CERCLA guidance will be conducted on a population basis. This requirement is intended to offset the uncertainty in risk conclusions for this area due to the paucity of soil and invertebrate data available to characterize risk since the cessation of smelter operations and the 'white rain' event of January 2008. This monitoring shall include, at a minimum, ground-dwelling invertebrates, an indicator of copper exposure to birds that feed primarily on invertebrates during critical life stage. This requirement

is intended to offset uncertainties in estimated copper exposure between 1,100 and 1,600 mg/kg. Monitoring shall be conducted in intervals no greater than 2 years for the first 5 years to establish a trend within the first 5 year review period. Monitoring frequency beyond the first 5 years will be determined based on the first 5 year review recommendations.

As indicated in the AOC, final RAC levels will be developed and established in the Decision Document for the site, and will be based on information from the RI and FS, results of soil and biotic monitoring, or other factors.

NMED understands that all of Chino's comments have been adequately addressed as stated in this letter and that the informal dispute resolution process is now concluded. This letter shall document the outcome of the resolution per article XII.I of the AOC.

If you have any questions, please contact me at (505) 827-2944.

Sincerely,

William C. Olson, Chief
Ground Water Quality Bureau
New Mexico Environment Department

cc: Mark Purcell, USEPA, Region VI
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